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## 7. Economic-Financial Analysis

Market analysis and the technical-technological analysis have produced their results, which are expressed both in physical and value units. On account of this, it is not possible to unify these results, save if all project effects, i.e. its revenue and costs are expressed in value units. The aim of the economic-financial analysis is to express in terms of value all project effects and to prepare the documentation and information basis for project appraisal. The structure of the economic-financial analysis:

- Overall revenue formation
- Investments in fixed assets
- Business costs

- Working capital investments
- Financing sources and liabilities
- Overall revenue distribution
- Project financial flow
- Balance sheet

### 7.1. Overall Revenue Formation

Overall revenue is a financial expression of the value of realized project output.

Table 3: The Formation of Overall Revenue in Physical Units – pieces

Production structure	Share in overall production	1	2	3	4	5	6	7	8	9	10
Annual production in kg		1,000,000	1,500,000	1,800,000	2,100,000	2,400,000	2,700,000	3,000,000	3,000,000	3,000,000	3,000,000
VPCI 126	75%	750,000	1,125,000	1,350,000	1,575,000	1,800,000	2,025,000	2,250,000	2,250,000	2,250,000	2,250,000
VPCI 125	10%	100,000	150,000	180,000	210,000	240,000	270,000	300,000	300,000	300,000	300,000
Ecofilms	15%	150,000	225,000	270,000	315,000	360,000	405,000	450,000	450,000	450,000	450,000
DESCRIPTION	Full capacity	1	2	3	4	5	6	7	8	9	10
% of the utilization of full capacity	3,000,000	33%	50%	60%	70%	80%	90%	100%	100%	100%	100%
% of the annual increase in the utilization of capacities			17%	10%	10%	10%	10%	10%	0%	0%	0%
% of the annual			50%	20%	17%	14%	13%	11%	0%	0%	0%

[illegible]

Revenue structure	Unit price in HRK	1	2	3	4	5	6	7	8	9	10
VPCI 126	28.83	21,618,900	32,428,350	38,914,020	45,399,690	51,885,360	58,371,030	64,856,700	64,856,700	64,856,700	64,856,700
VPCI 125	34.88	3,488,400	5,232,600	6,279,120	7,325,640	8,372,160	9,418,680	10,465,200	10,465,200	10,465,200	10,465,200
Ecofilms	45.66	6,848,280	10,272,420	12,326,904	14,381,388	16,435,872	18,490,356	20,544,840	20,544,840	20,544,840	20,544,840
TOTAL in HRK		31,955,580	47,933,370	57,520,044	67,106,718	76,693,392	86,280,066	95,866,740	95,866,740	95,866,740	95,866,740

## 7.2. Overall Cost Formation

Under business costs the following is implied:

- Material costs;
- Gross salaries;
- Depreciation.

### 7.2.1. Material Costs

The formation of business material costs is based on the following budget and plan values:

Table 5: The Formation of Direct Material Costs per Product Unit in US\$ per kg:

Raw costs per kg	\$/kg	Raw share VPC 126	Raw share VPC 125	1 kg VPC 126	1 kg VPC 125	Ecofilm-raw costs* 70%

LDPE	1.86	42%		\$0.78		\$0.74	
LLDPE	1.92	44%		\$0.84		\$0.79	
M-126	13.71	14%		\$1.92		\$2.06	
ESD	2.15	4%				\$0.09	
<b>TOTAL</b>		<b>100%</b>		<b>\$3.55</b>		<b>\$3.67</b>	<b>\$5.22</b>

\*70% of the sales price in the production of Ecofilms refers to the cost of raw

Table 6: Costs of Incoming Raw per Years of the Project Economic Duration

Structure of incoming raw costs at the annual level	1	2	3	4	5	6	7	8	9	10
VPCI 126	21.73	16,273,386	24,410,079	29,292,095	34,174,111	39,056,126	43,938,142	48,820,158	48,820,158	48,820,158
VPCI 125	22.46	2,248,304	3,372,457	4,046,948	4,721,439	5,395,931	6,070,422	6,744,913	6,744,913	6,744,913
Ecofilms	31.95	4,793,796	7,190,694	8,628,833	10,066,972	11,505,110	12,943,249	14,381,388	14,381,388	14,381,388
<b>TOTAL in</b>		<b>23,315,486</b>	<b>34,973,230</b>	<b>41,967,876</b>	<b>48,962,521</b>	<b>55,957,167</b>	<b>62,951,813</b>	<b>69,946,459</b>	<b>69,946,459</b>	<b>69,946,459</b>

Table 6: The Calculation of Electrical Energy Consumption with Full Production Capacity Utilization

The calculation of electrical energy consumption

Shifts	Night	Day	Total in EUR	Total in HRK
Price per h in EUR	0.042	0.064		
Hours of operation/month	240	240		
650 kW * the number of monthly hours	156,000	156,000		

Cost at production during 20 work days	6,614	9,922	16,536	
Monthly fee for power in EUR	5.50	8.00		
650 kW * fee per kW	3,575	5,200	8,775	
Cost of electrical energy at maximum utilization			25,311	
Monthly cost of electrical energy with full production capacity (70% of the maximum utilization)			17,718	131,465
Yearly cost of electrical energy with full production capacity			212,612	1,577,584

Table 6: Overall Material Costs

<b>Material costs</b>	<b>Annual increase</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>
Direct MC		25,240,276	37,860,415	45,432,499	53,004,581	60,576,664	68,148,748	75,720,831	75,720,831	75,720,831	75,720
Cost of basic material		23,315,486	34,973,230	41,967,876	48,962,521	55,957,167	62,951,813	69,946,459	69,946,459	69,946,459	69,946
Waste (5% of the cost of basic material)	5%	1,165,774	1,748,661	2,098,394	2,448,126	2,797,858	3,147,591	3,497,323	3,497,323	3,497,323	3,497,323
Cost of transport and customs	Per annual production	525,861	788,792	946,550	1,104,309	1,262,067	1,419,826	1,577,584	1,577,584	1,577,584	1,577,584

Indirect MC		1,519,778	1,674,187	1,780,211	1,889,633	2,002,689	2,119,634	2,240,745	2,318,386	2,400,812	2,488,112
Office supplies consumed		12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000
Cleaning material consumed		10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
Fuel	5%	30,000	31,500	33,075	34,729	36,465	38,288	40,203	42,213	44,324	46,540
Gas	5%	100,000	105,000	110,250	115,763	121,551	127,628	134,010	140,710	147,746	155,113
Water	5%	60,000	63,000	66,150	69,458	72,930	76,577	80,406	84,426	88,647	93,080
Accounting services	2%	240,000	244,800	249,696	254,690	259,784	264,979	270,279	275,685	281,198	286,821
Telephone and postal services	5%	120,000	126,000	132,300	138,915	145,861	153,154	160,811	168,852	177,295	186,115
Maintenance costs		120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000
Promotional costs		40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000
Security costs	5%	50,000	52,500	55,125	57,881	60,775	63,814	67,005	70,355	73,873	77,566
Per diems	2%	60,000	61,200	62,424	63,672	64,946	66,245	67,570	68,921	70,300	71,706
Bank services (guarantees, fees, payment transactions)	5%	300,000	315,000	330,750	347,288	364,652	382,884	402,029	422,130	443,237	465,391
Contributions to the Croatian Economic Chamber, Tourist Board, forestry		25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000



EMPLOYEES, COMMERCIAL SECTOR AND ACCOUNTING (1 high-school and 2 college-trained)	257,371	283,108	311,419	342,561	376,817	414,499	455,949	501,544	551,698	606,868
<b>Total:</b>	<b>1,617,360</b>	<b>2,323,092</b>	<b>2,759,399</b>	<b>3,198,538</b>	<b>3,640,790</b>	<b>4,086,469</b>	<b>4,495,116</b>	<b>4,944,627</b>	<b>5,439,090</b>	<b>5,982,999</b>

<b>Total cost for salaries</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>
Annual increase in direct salaries	-	50%	20%	17%	14%	13%	10%	10%	10%	10%
Annual increase in indirect salaries	-	10%	10%	10%	10%	10%	10%	10%	10%	10%

Table 8: Payroll Settlement

<b>DESCRIPTION</b>	<b>RATE</b>	<b>MONTHLY SALARY</b>	<b>MONTHLY SALARY</b>	<b>MONTHLY SALARY</b>	<b>TOTAL</b>
		Higher education and college-trained	High school	Skilled and unskilled	
<b>Gross basis</b>		<b>7,000.00</b>	<b>4,300.00</b>	<b>3,100.00</b>	
Contributions to the salary	17.20%	1,204.00	739.60	533.20	-
Health insurance	15.00%	1,050.00	645.00	465.00	-
Injury fee	0.50%	35.00	21.50	15.50	-



Employment fee	1.70%	119.00	73.10	52.70	-
Contributions out of the salary	20.00%	1,400.00	860.00	620.00	-
Pension fund – 1st	15.00%	1,050.00	645.00	465.00	-
Pension fund – 2nd	5.00%	350.00	215.00	155.00	-
Basis for tax		5,600.00	3,440.00	2,480.00	-
Personal deduction	1.00	1,600.00	1,600.00	1,600.00	-
Tax basis		4,000.00	1,840.00	880.00	-
Tax 15%	15%	450.00	276.00	132.00	-
Tax 25%	25%	250.00	-	-	-
Tax 35%	35%	-	-	-	-
Tax 45%	45%	-	-	-	-
Total Taxes		700.00	276.00	132.00	-
Local taxes	0.00%	-	-	-	-
Total Taxes and local taxes		700.00	276.00	132.00	-
<b>NET SALARY</b>		<b>4,900.00</b>	<b>3,164.00</b>	<b>2,348.00</b>	<b>-</b>
TOTAL GROSS SALARY WITH CONTRIBUTIONS TO THE GS		8,204.00	5,039.60	3,633.20	16,876.80
NUMBER OF EMPLOYEES		5	15	5	25
TOTAL COST FOR SALARIES		41,020.00	75,594.00	18,166.00	134,780
<b>TOTAL ANNUAL</b>	<b>12</b>	<b>492,240</b>	<b>907,128</b>	<b>217,992</b>	<b>1,617,360</b>

<b>COST FOR SALARIES</b>					
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\*in the calculation of employees' net salaries, the assumption is that the deduction coefficient for all employees is 1

The investment shall in phase one secure the employment of 25 persons, mostly from the areas of special state concern. The company employee structure will be as follows:

	Higher education and college-trained	High school	Skilled and unskilled	TOTAL
MANAGEMENT	1		1	1
COMMERCIAL SECTOR AND ACCOUNTING		3		3
LABORATORY	1	2		3
PRODUCTION	3	9	1	13
WAREHOUSE AND HANDLING		1	4	5
<b>TOTAL</b>	<b>5</b>	<b>15</b>	<b>5</b>	<b>25</b>

### 7.2.3. Depreciation

Table 9: Investments in Long-Term Assets

STRUCTURE OF INVESTMENTS IN LONG-TERM ASSETS	HRK	EUR	%
Land plot	583,865	78,688	2%
Business object	10,735,700	1,446,860	35%
Machinery and equipment	13,652,800	1,840,000	45%
Power station 1 MW (1000	1,600,000	53,908	5%





DEPRECIATION	1,633,673	1,633,673	1,633,673	1,633,673	1,633,673	1,633,673
FINANCING	1,149,470	426,563		278,194	129,824	80,367
COSTS				228,737		
PROFIT TAX	0	0	0	0	0	0
Total:	31,160,558	43,917,930	51,982,888	68,132,010	84,269,644	85,274,772

The calculation for working capital investments in the investment project is done based on calculated financial amounts of items of working capital, items of business sources and corresponding working coefficients.

The continuation presents the calculation for working capital investments:

Table 12: Calculation for Working Capital Investments

Item	RD	KO	1	2	3	4	5	6	7	8
1. MATERIAL STOCK	15	24	1,029,767	1,544,651	1,853,581	2,162,511	2,471,442	2,780,372	3,089,302	3,089,302
2. CURRENT PRODUCTION	2	180	156,222	230,970	275,893	320,834	365,796	410,780	455,560	458,235
3. FINISHED PRODUCT STOCK	15	24	1,219,563	1,750,048	2,084,908	2,419,910	2,755,063	3,090,379	3,424,168	3,442,172
4. CUSTOMERS	20	18	1,640,383	2,349,125	2,797,179	3,245,578	3,694,352	4,143,533	4,590,887	4,617,426
5. MONEY	1	360	82,019	117,456	139,859	162,279	184,718	207,177	229,544	230,874
<b>A. TOTAL NECESSARY WC</b>			<b>4,127,954</b>	<b>5,992,250</b>	<b>7,151,420</b>	<b>8,311,113</b>	<b>9,471,371</b>	<b>10,632,239</b>	<b>11,789,461</b>	<b>11,838,906</b>
6. VENDORS	5	72	371,667	549,092	655,732	762,420	869,158	975,950	1,082,800	1,083,878
7. SALARIES	15	24	67,390	96,795	114,975	133,272	151,700	170,270	187,296	206,026
8. DEPRECIATION	182	2	825,912	825,912	825,912	825,912	825,912	825,912	825,912	825,912
9. FINANCING	45	8	143,684	53,320	47,138	40,956	34,774	28,592	22,410	16,228

[illegible]

\*in business sources, average recognition days were used (RD/2)

## 7.5. Financing Sources and Liabilities

Loan amount:	22,255,481 HRK
Payment period:	9 years
Interest rate:	2%
Payment method:	quarterly equal repayment installments
Grace period:	1 year

Table 13: Loan Repayment Plan

	REPAYMENT	INTEREST	REMAINING DEBT	ANNUITY
0	-	-	22,255,481	

1	-	222,555	22,255,481	222,555
2	-	222,555	22,255,481	222,555
3	-	222,555	22,255,481	222,555
4	-	222,555	22,255,481	222,555
5	-	<b>890,219</b>		<b>890,219</b>
6	618,208	111,277	21,637,273	729,485
7	618,208	108,186	21,019,065	726,394
8	618,208	105,095	20,400,858	723,303
9	618,208	102,004	19,782,650	720,212
10	<b>2,472,831</b>	<b>426,563</b>		<b>2,899,395</b>
11	618,208	98,913	19,164,442	717,121
12	618,208	95,822	18,546,234	714,030
13	618,208	92,731	17,928,026	710,939
14	618,208	89,640	17,309,819	707,848
15	<b>2,472,831</b>	<b>377,107</b>		<b>2,849,938</b>
16	618,208	86,549	16,691,611	704,757
17	618,208	83,458	16,073,403	701,666
18	618,208	80,367	15,455,195	698,575
19	618,208	77,276	14,836,987	695,484
20	<b>2,472,831</b>	<b>327,650</b>		<b>2,800,481</b>
21	618,208	74,185	14,218,780	692,393
22	618,208	71,094	13,600,572	689,302
23	618,208	68,003	12,982,364	686,211
24	618,208	64,912	12,364,156	683,120
25	<b>2,472,831</b>	<b>278,194</b>		<b>2,751,025</b>
26	618,208	61,821	11,745,948	680,029
27	618,208	58,730	11,127,741	676,938
28	618,208	55,639	10,509,533	673,847
29	618,208	52,548	9,891,325	670,755
30	<b>2,472,831</b>	<b>228,737</b>		<b>2,701,568</b>
31	618,208	49,457	9,273,117	667,664

26	618,208	46,366	8,654,909	664,573
27	618,208	43,275	8,036,701	661,482
28	618,208	40,184	7,418,494	658,391
	<b>2,472,831</b>	<b>179,280</b>		<b>2,652,111</b>
29	618,208	37,092	6,800,286	655,300
30	618,208	34,001	6,182,078	652,209
31	618,208	30,910	5,563,870	649,118
32	618,208	27,819	4,945,662	646,027
	<b>2,472,831</b>	<b>129,824</b>		<b>2,602,655</b>
33	618,208	24,728	4,327,455	642,936
34	618,208	21,637	3,709,247	639,845
35	618,208	18,546	3,091,039	636,754
36	618,208	15,455	2,472,831	633,663
	<b>2,472,831</b>	<b>80,367</b>		<b>2,553,198</b>
37	618,208	12,364	1,854,623	630,572
38	618,208	9,273	1,236,416	627,481
39	618,208	6,182	618,208	624,390
40	618,208	3,091	(0)	621,299
	<b>2,472,831</b>	<b>30,910</b>		<b>2,503,742</b>
<b>TOTAL</b>	<b>22,255,481</b>	<b>2,948,851</b>	<b>-</b>	<b>25,204,332</b>

Table 14: Liabilities as per Project Duration Years

	1	2	3	4	5	6	7	8	9	10
INTEREST	890,219	426,563	377,107	327,650	278,194	228,737	179,280	129,824	80,367	30,910
ANNUITIES	890,219	2,899,395	2,849,938	2,800,481	2,751,025	2,701,568	2,652,111	2,602,655	2,553,198	2,503,742
Loan processing fee					259,251					



## 7.6. Profit and Loss Statement

The profit and loss statement has been composed based on calculated values of revenue and costs. The results of thus formed Profit and Loss Statement show that the investor realizes positive results, i.e. that the project is financially successful in all years of project economic duration.

Based on the Profit Tax Act, that was reached by the Croatian Parliament at the session held on 3 December 2004, Article 21, tax payers performing activities in areas of special state concern that employ more than 5 people in the mode of indefinite employment, 50% of which reside in areas of special state concern for nine months minimum, pay the profit tax for the period of ten years from the start date of this law as follows:

1. they do not pay the profit tax in areas of group one
2. they pay 25% of proscribed tax rate in areas of group two
3. they pay 75% of proscribed tax rate in areas of group three

It is considered the taxpayer from Paragraph 1 of this Article employs a person from areas of special state concern on indefinite terms if the employee worked with the taxpayer and resided in the area of special state concern for the period of nine months minimum during the tax period.

The company has its headquarters in an area of special state concern of group one and will employ 25 people, mostly coming from the stated area. On account of this, the income tax rate for the investor amounts to 0%, until the end of the 9th project duration year. In the 10th project duration year, the investor will be liable for paying the profit tax according to the regular rate (20%), given that the application of the stated law started on 1 January 2005.

Reserves according to the rate of 5% are being taken out of net profits.

The investment project, as seen in the table below, regularly settles all liabilities towards the state, employees, vendors and financiers, regularly realizes profit expressed through retained profit, which means excess of revenue over all planned liabilities and costs.

Table 15: the Profit and Loss Statement

Item	1	2	3	4	5	6	7	8	9	10
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TOTAL REVENUE	31,955,580	47,933,370	57,520,044	67,106,718	76,693,392	86,280,066	95,866,740	95,866,740	95,866,740	95,866,740
TOTAL COSTS	31,160,558	43,917,930	51,982,888	60,054,075	68,132,010	76,217,260	84,269,644	84,747,340	85,274,772	85,850,000
BUSINESS COSTS	30,011,087	43,491,366	51,605,781	59,726,425	67,853,816	75,988,523	84,090,364	84,617,516	85,194,405	85,825,000
-MATERIAL COSTS	26,760,055	39,534,602	47,212,709	54,894,214	62,579,354	70,268,382	77,961,576	78,039,217	78,121,643	78,209,000
- DEPRECIATION	1,633,673	1,633,673	1,633,673	1,633,673	1,633,673	1,633,673	1,633,673	1,633,673	1,633,673	1,633,673
-GROSS SALARIES	1,617,360	2,323,092	2,759,399	3,198,538	3,640,790	4,086,469	4,495,116	4,944,627	5,439,090	5,982,000
FINANCIAL COSTS	1,149,470	426,563	377,107	327,650	278,194	228,737	179,280	129,824	80,367	30,910
-INTEREST AND FEE	1,149,470	426,563	377,107	327,650	278,194	228,737	179,280	129,824	80,367	30,910
GROSS PROFIT	795,022	4,015,440	5,537,156	7,052,643	8,561,382	10,062,806	11,597,096	11,119,400	10,591,968	10,000,000
PROFIT TAX - 20%	-	-	-	-	-	-	-	-	-	2,001,000
NET PROFIT	795,022	4,015,440	5,537,156	7,052,643	8,561,382	10,062,806	11,597,096	11,119,400	10,591,968	8,000,000
RESERVES 5%	39,751	200,772	276,858	352,632	428,069	503,140	579,855	555,970	529,598	460,300
RETAINED PROFIT	755,271	3,814,668	5,260,298	6,700,011	8,133,313	9,559,666	11,017,241	10,563,430	10,062,369	7,537,000

Table 16: Balance Sheet

Structure	1	2	3	4	5	6	7	8	9	10
ASSETS										
1. LONG-TERM ASSETS	26,210,092	24,576,420	22,942,747	21,309,075	19,675,402	18,041,730	16,408,057	14,774,385	13,140,712	11,507,000
2. SHORT-	5,147,996	8,324,278	13,022,275	19,235,760	26,957,983	36,181,630	46,939,567	57,219,809	66,972,618	74,314,000



## 8. Project Market Appraisal

Under the term investment project appraisal a cluster of actions is implied, the aim of which is to put the justifiability and acceptance of the project in perspective.

The efficiency of an investment project can be appraised in a single project duration period or during its whole duration, so the continuation shows static and dynamic overviews of project appraisal.

### 8.1. Static Approach to Project Appraisal

The static approach to project appraisal implies an analysis of its efficiency by utilizing data on business efficiency in the representative year of business.

The criteria for selecting the representative year are:

- that the possible project capacity utilization has been achieved
- that project loan is still being repayed

As the representative year the 7th year of project economic duration was used.

Return of total business funds	0.183070728
Net profit	11,597,096
Basic funds + working capital	63,347,625
Return from the owner point of view	0.207353405
Net profit	11,597,096
Own capital	55,929,131
Turnover return	0.120971004

Net profit	11,597,096
Total revenue	95,866,740
Business funds turnover	1.513343876
Total revenue	95,866,740
Basic funds + working capital	63,347,625
Return from the financing source point of view	0.18590083
Net profit + interest	11,776,376
Basic funds + working capital	63,347,625
Net profit per employee	463,883.83
Net profit	11,597,096
Number of employees	25
Reproduction capability	0.208859737
Net profit + depreciation	13,230,768
Basic funds + working capital	63,347,625

- the return of total business funds is 0.183070728 and shows the ratio between net profit and the total business funds, i.e. the basic funds and the working capital;
- the return from the owner point of view shows that 0.207353405 units of profit are realized per own capital unit;
- the turnover return shows the share of net profit in the total revenue and is 0.120971004;
- the turnover of business funds is the ratio between the total revenue in the representative year and used business funds in that year, here in concrete terms it is 1.513343876;
- the return from the financing source point of view provides the information on return of total invested funds. It is 0.18590083, while the border acceptable value is zero;
- the net profit per employee is 463,883.83 HRK and shows the return of used labor in the representative year, while the border acceptable value is zero;
- the reproduction capability is 0.208859737 while the border acceptable value is equal to zero.

[illegible]

[illegible]

CUMULATIVE NET REVENUE	-	2,388,944	3,616,624	6,997,232	11,817,195	18,070,074	25,748,892	34,887,447	44,576,800	53,761
Table 18: Economic Flow										
Structure	0	1	2	3	4	5	6	7	8	9
I. REVENUE	-	34,955,580	47,933,370	57,520,044	67,106,718	76,693,392	86,280,066	95,866,740	95,866,740	95,866,740
1. TOTAL REVENUE	-	31,955,580	47,933,370	57,520,044	67,106,718	76,693,392	86,280,066	95,866,740	95,866,740	95,866,740
2. REMAINING PROJECT	-	-	-	-	-	-	-	-	-	-
2.1. BASIC FUNDS	-	-	-	-	-	-	-	-	-	-
2.2. WORKING CAPITAL	-	-	-	-	-	-	-	-	-	-
2.3. RESERVES	-	-	-	-	-	-	-	-	-	-
II. COSTS	27,843,765	31,136,467	43,806,295	51,289,498	59,486,274	67,689,488	75,899,680	84,076,073	83,574,733	84,128
3. TRANSFER OF EXISTING FUNDS	-	-	-	-	-	-	-	-	-	-
4. INVESTMENTS IN BASIC FUNDS	27,843,765	-	-	-	-	-	-	-	-	-
5. INVESTMENTS IN WORKING CAPITAL	-	2,719,301	1,747,830	1,040,531	1,040,890	1,041,275	1,041,689	1,039,527	34,919	38,014
6. MATERIAL COSTS	-	26,760,055	39,534,602	47,212,709	54,894,214	62,579,354	70,268,382	77,961,576	78,039,217	78,121
7. GROSS SALARIES	-	1,617,360	2,323,092	2,759,399	3,198,538	3,640,790	4,086,469	4,495,116	4,944,627	5,439,136



8. PROFIT TAX	-	-	-	-	-	-	-	-	-
9. RESERVES	39,751	200,772	276,858	352,632	428,069	503,140	579,855	555,970	529,59
<b>NET REVENUE (27,843,765)</b>	<b>819,113</b>	<b>4,127,075</b>	<b>6,230,546</b>	<b>7,620,444</b>	<b>9,003,904</b>	<b>10,380,386</b>	<b>11,790,667</b>	<b>12,292,007</b>	<b>11,738</b>

**INTERNAL PROFITABILITY RATE 22.77%**

### 8.2.1. The Period of Investment Return Method

Table 19: The Period of Investment Return

Year	INVESTMENTS		INVESTMENTS		ACCUMULATION		ACCUMULATION		INVESTMENTS NOT COVERED	
	ANNUAL AMOUNT	CUMULATIVE	ANNUAL AMOUNT	CUMULATIVE	ANNUAL AMOUNT	CUMULATIVE	ANNUAL AMOUNT	CUMULATIVE	INVESTMENTS NOT COVERED	
0	27,843,765	27,843,765	-	-	-	-	-	-	(27,843,765)	
1	2,719,301	30,563,066	3,538,414	3,538,414	3,538,414	3,538,414	3,538,414	3,538,414	(27,024,652)	
2	1,747,830	32,310,896	5,874,904	9,413,318	5,874,904	9,413,318	5,874,904	9,413,318	(22,897,577)	
3	1,040,531	33,351,427	7,271,078	16,684,396	7,271,078	16,684,396	7,271,078	16,684,396	(16,667,031)	
4	1,040,890	34,392,317	8,661,334	25,345,730	8,661,334	25,345,730	8,661,334	25,345,730	(9,046,587)	
5	1,041,275	35,433,592	10,045,179	35,390,909	10,045,179	35,390,909	10,045,179	35,390,909	(42,683)	
<b>6</b>	<b>1,041,689</b>	<b>36,475,281</b>	<b>11,422,075</b>	<b>46,812,984</b>	<b>11,422,075</b>	<b>46,812,984</b>	<b>11,422,075</b>	<b>46,812,984</b>	<b>10,337,703</b>	
7	1,039,527	37,514,808	12,830,194	59,643,177	12,830,194	59,643,177	12,830,194	59,643,177	22,128,370	
8	34,919	37,549,727	12,326,926	71,970,104	12,326,926	71,970,104	12,326,926	71,970,104	34,420,377	
9	38,014	37,587,741	12,330,022	84,300,125	12,330,022	84,300,125	12,330,022	84,300,125	46,712,384	
10	74,774	37,662,515	34,464,982	118,765,108	34,464,982	118,765,108	34,464,982	118,765,108	81,102,593	

Based on stated data, it can be concluded that the total invested funds in this project are returned by realized accumulation in the 6th year of project economic duration, so the investment project is taken as **acceptable for realization** using this criterion as well.

### 8.2.2. Net Current Value

Table 20: Project Net Current Value

Year	Nominal net revenue	Discount factor for the rate of 4%	Discounted net revenue
0	(27,843,765)	1.000000	(27,843,765)
1	819,113	0.9615385	787,609
2	4,127,075	0.9245562	3,815,713
3	6,230,546	0.8889964	5,538,933
4	7,620,444	0.8548042	6,513,987
5	9,003,904	0.8219271	7,400,553
6	10,380,386	0.7903145	8,203,770
7	11,790,667	0.7599178	8,959,938
8	12,292,007	0.7306902	8,981,649
9	11,738,394	0.7025867	8,247,240
10	34,390,208	0.6755642	23,232,792
		<b>NCV</b>	<b>53,838,419</b>

The method of net current value has important positive features, for it takes into account the overall project duration and takes care of temporal preferences.

The deficiency of the method of net current value is that it measures only the absolute effect on project assets, not pointing out the level of investments necessary to realize this current value. This deficiency is eliminated by the calculation of the relative project net current value, that links the project net current value and the investments needed for it to be realized.

The project is more acceptable if its relative net current value is higher.

Table 21: Investment Net Current Value

Year	Nominal investment amounts	Discount factors for the rate of 4%	Discounted investment amounts
0	27,843,765	1.0000000	27,843,765
1	2,719,301	0.9615385	2,614,713
2	1,747,830	0.9245562	1,615,967
3	1,040,531	0.8889964	925,029
4	1,040,890	0.8548042	889,757
5	1,041,275	0.8219271	855,852
6	1,041,689	0.7903145	823,262
7	1,039,527	0.7599178	789,955
8	34,919	0.7306902	25,515
9	38,014	0.7025867	26,708
10	74,774	0.6755642	50,515
			<b>36,461,037</b>

The relative project net current value

**1.47660143**

The project realizes **148%** of project net current value per unit of invested capital.

### 8.2.3. Internal Return Rate

The internal return rate is defined as that discount rate that brings the project current value to zero. This also means determining the maximum interest rate to financing sources the project can bear, while retaining the border profitability. In the technical sense, the internal rate return is calculated by interpolation between discount rates, with positive and negative net revenues.

The internal return rate for this project is **22.77%**, which means that this is the maximum interest rate the project can handle, while retaining profitability, if it is entirely financed from sources other than own. The internal return rate is higher than the interest rate for the loan, so according to this method the project is **acceptable for realization**.

#### 8.2.4. Liquidity Appraisal

Liquidity appraisal for an investment project is arrived at based on Financial Flow, that during project duration registers all revenue and costs as amounts of money received or issued, independently of the fact whether these are representatives of actual resources or financial transactions.

In contrast to the Economic Flow, the Financial Flow in scope of revenue also contains financing sources, and in scope of costs – liabilities to financing sources.

From the structure of revenue and costs of the Financial Flow, it is visible this is a dynamic monitoring of the annual gyro account balance, where revenue is the incoming, and costs the outgoing side of the account. This means Net Revenue in the Financial Flow, as the difference between revenue and costs, actually are the amounts of free monetary funds, that are at owner's disposal for reinvestments.

Positive Net Revenue in the Financial Flow of this investment project point to the fact that this project is liquid in all years, i.e. that in each of the years of its duration it manages to cover all liabilities to vendors, employees, credit institutions and the state, and that an appropriate amount of free monetary funds for reinvestments remains. From this viewpoint, this project is appraised as **acceptable for realization**.

#### 9. Sensitivity Analysis

The goal of sensitivity analysis is to appraise the acceptability of projects in case the values of key parameters are different than planned in the course of the analysis so far.

Under key parameters, the elements are implied that:

- significantly impact project efficiency
- are conspicuously uncertain at the same time

### 9.1. Static Sensitivity Analysis

Flexibility or sensitivity of projects are expressed as the calculation of the threshold of projected capacity utilization, where business secures the profit needed for the return of all liabilities, without creating excess of value.

\*minimum price ratios                      87.15%

With the existing realization, sales prices can be lowered for 12.15%.

However, it needs to be taken into account that this indicator considers only one (representative) business year – the 7th year of project economic duration.

### 9.2. Dynamic Sensitivity Analysis

The goal of sensitivity analysis is to appraise the acceptability of projects in case the values of key parameters are different than planned in the course of the analysis so far.

Under key parameters, the elements are implied that:

- significantly impact project efficiency
- are conspicuously uncertain at the same time

In this project, project sensitivity is analyzed in conditions of **the decrease of overall revenue by 10%**, and the corresponding decrease in costs.

The analysis of the Profit and Loss Statement shows the company does business in positive terms in all years of project economic duration even in conditions of decreased realization by 10%.

The internal return rate is **19.44%** which is higher than loan interest rate.

The stated indicators show the project is acceptable even in conditions of uncertainty, i.e. with the decrease of overall revenue by 10%.

Table 22: Profit and Loss Statement (overall revenue decreased by 10%)

Item	1	2	3	4	5	6	7	8	9	10
TOTAL REVENUE	28,760,022	43,140,033	51,768,040	60,396,046	69,024,053	77,652,059	86,280,066	86,280,066	86,280,066	86,280,066
TOTAL COSTS	28,620,552	40,107,921	47,410,878	54,720,063	62,035,997	69,359,245	76,649,628	77,127,323	77,654,756	78,236,000
BUSINESS COSTS	27,471,082	39,681,358	47,033,771	54,392,413	61,757,803	69,130,509	76,470,348	76,997,500	77,574,389	78,205,000
-MATERIAL COSTS	24,220,049	35,724,594	42,640,700	49,560,203	56,583,340	63,410,367	70,341,560	70,419,200	70,501,627	70,589,000
- DEPRECIATION	1,633,673	1,633,673	1,633,673	1,633,673	1,633,673	1,633,673	1,633,673	1,633,673	1,633,673	1,633,673
-GROSS SALARIES	1,617,360	2,323,092	2,759,399	3,198,538	3,640,790	4,086,469	4,495,116	4,944,627	5,439,090	5,982,000
FINANCIAL COSTS	1,149,470	426,563	377,107	327,650	278,194	228,737	179,280	129,824	80,367	30,910
-INTEREST AND FEE	1,149,470	426,563	377,107	327,650	278,194	228,737	179,280	129,824	80,367	30,910
GROSS PROFIT	139,470	3,032,112	4,357,162	5,675,983	6,988,056	8,292,814	9,630,438	9,152,743	8,625,310	8,043,000
PROFIT TAX – 20%	-	-	-	-	-	-	-	-	-	-
NET PROFIT	139,470	3,032,112	4,357,162	5,675,983	6,988,056	8,292,814	9,630,438	9,152,743	8,625,310	8,043,000
RESERVES 5%	6,973	151,606	217,858	283,799	349,403	414,641	481,522	457,637	431,266	402,150







[illegible]

Table 25: Economic Flow (overall revenue decreased by 10%)

[illegible]

II. COSTS	27,843,765	28,227,873	39,779,215	46,557,745	53,982,687	61,414,065	68,852,422	76,256,980	75,856,384	78,409
3. TRANSFER OF EXISTING FUNDS	-									
4. INVESTMENTS IN BASIC FUNDS	27,843,765		-	-	-	-	-	-	-	-
5. INVESTMENTS IN WORKING CAPITAL	-	2,383,491	1,579,924	939,788	940,147	940,532	940,946	938,784	34,919	38,014
6. MATERIAL COSTS	-	24,220,049	35,724,594	42,640,700	49,560,203	56,483,340	63,410,367	70,341,560	70,419,200	70,501
7. GROSS SALARIES	-	1,617,360	2,323,092	2,759,399	3,198,538	3,640,790	4,086,469	4,495,116	4,944,627	5,239,1
8. PROFIT TAX	-	-	-	-	-	-	-	-	-	-
9. RESERVES	-	6,973	151,606	217,858	283,799	349,403	414,641	481,522	457,637	431,26
NET REVENUE	(27,843,765)	532,149	3,360,818	5,210,295	6,413,360	7,609,987	8,799,637	10,023,086	10,423,682	9,870,1

INTERNAL RETRUN RATE 19.44%

Table 26: Investment Return Period (Sensitivity Analysis)

Year	INVESTMENTS		INVESTMENTS		ACCUMULATION		ACCUMULATION		INVESTMENTS	
	ANNUAL AMOUNT		CUMULATIVE		ANNUAL AMOUNT		CUMULATIVE		NOT COVERED	
0	27,843,765		27,843,765		-		-		(27,843,765)	
1	2,383,491		30,227,255		2,915,639		2,915,639		(27,311,616)	

2	1,579,924	31,807,180	4,940,742	7,856,381	(23,950,799)
3	939,788	32,746,968	6,150,083	14,006,464	(18,740,504)
4	940,147	33,687,115	7,353,507	21,359,971	(12,327,144)
5	940,532	34,627,647	8,550,519	29,910,490	(4,717,157)
<b>6</b>	<b>940,946</b>	<b>35,568,592</b>	<b>9,740,583</b>	<b>39,651,072</b>	<b>4,082,480</b>
7	938,784	36,507,376	10,961,869	50,612,942	14,105,566
8	34,919	36,542,295	10,458,602	61,071,543	24,529,248
9	38,014	36,580,309	10,461,697	71,533,240	34,952,931
10	68,218	36,648,528	31,205,728	102,738,968	66,090,440

Even in conditions of the decrease of overall revenue and corresponding costs by 10%, the period of investment return is within the scope of project duration, i.e. in the 6th year of project economic duration. Therefore, even according to this criterion the project is **acceptable for realization**.

Table 27. Project Net Current Value (Sensitivity Analysis)

Year	Nominal net revenue	Discount factor for the rate of 4%	Discounted net revenue
0	(27,843,765)	1.0000000	(27,843,765)
1	532,149	0.9615385	511,681
2	3,360,818	0.9245562	3,107,265
3	5,210,295	0.8889964	4,631,933
4	6,413,360	0.8548042	5,482,167
5	7,609,987	0.8219271	6,254,855
6	8,799,637	0.7903145	6,954,481
7	10,023,086	0.7599178	7,616,721
8	10,423,682	0.7306902	7,616,483
9	9,870,070	0.7025867	6,934,580
10	31,137,509	0.6755642	21,035,386
		<b>NCV</b>	<b>42,301,786</b>

Table 28: Investment Net Current Value (Sensitivity Analysis)

Year	Nominal investment amounts	Discount factors for the rate of 4%	Discounted investment amounts
0	27,843,765	1.0000000	27,843,765
1	2,383,491	0.9615385	2,291,818
2	1,579,924	0.9245562	1,460,729
3	939,788	0.8889964	835,468
4	940,147	0.8548042	803,641
5	940,532	0.8219271	773,049
6	940,946	0.7903145	743,643
7	938,784	0.7599178	713,398
8	34,919	0.7306902	25,515
9	38,014	0.7025867	26,708
10	68,218	0.6755642	46,086
			<b>35,563,821</b>

The relative net current value

**1.18946125**